

WHAT IS CLAIMED IS:

1. A composition for immunohistochemical staining which contains a diagnostic marker comprising:

an antibody bound with a fluorescent functional group comprising an indocyanine green derivative which is excited to cause fluorescence, and

at least one substance which enhances fluorescence intensity of the fluorescent functional group, said substance being selected from glycerophospholipid, fatty acid, or surfactant wherein the surfactant is a saccharide derivative.

2. The composition according to claim 1, wherein the glycerophospholipid is acylglycerol phosphate.

3. The composition according to claim 2, wherein the acylglycerol phosphate is 1,2-diacyl-sn-glycerol 3-phosphate containing two C₁₀₋₂₀ fatty acid residues.

4. The composition according to claim 3, wherein the 1,2-diacyl-sn-glycerol 3-phosphate is dimyristoylphosphatidic acid or distearoylphosphatidic acid.

5. The composition according to claim 1, wherein the glycerophospholipid is acylglycerol phosphocholine.

6. The composition according to claim 5, wherein the acylglycerol phosphocholine is 1,2-diacyl-sn-glycerol 3-phosphocholine containing two C₁₀₋₂₀ fatty acid residues.

7. The composition according to claim 5, wherein the 1,2-diacyl-sn-glycerol 3-phosphocholine is distearoylphosphatidylcholine.

8. The composition according to claim 1, wherein the surfactant is octyl glucoside, heptyl

glucoside, octyl thioglucoside, or heptyl thioglucoside.

9. The composition according to claim 8, wherein the surfactant is octyl glucoside.

10. The composition according to claim 1 comprising the at least one substance selected from glycerophospholipid or fatty acid, and surfactant.

11. The composition according to claim 1, wherein the indocyanine green derivative is derived from indocyanine green-N-hydroxysulfosuccinimide ester.

12. The composition according to claim 1, wherein the antibody is an anti-cancer antigen antibody.

13. An agent for enhancing fluorescence intensity of a diagnostic marker for immunohistochemical staining, the diagnostic marker comprising an antibody bound with a fluorescent functional group derived from an indocyanine green derivative which is excited to cause fluorescence, and the agent comprising:

at least one substance which enhances fluorescence intensity of the fluorescent functional group, said substance being selected from glycerophospholipid, fatty acid, or surfactant wherein the surfactant is a saccharide derivative.

14. A method for immunohistochemical staining of a tumor cell comprising:
contacting the tumor cell with a composition which contains a diagnostic marker comprising: an antibody bound with a fluorescent functional group comprising an indocyanine green derivative which is excited to cause fluorescence, and at least one substance which enhances fluorescence intensity of the fluorescent functional group, said substance being selected from glycerophospholipid, fatty acid, or surfactant wherein the surfactant is a saccharide derivative and

allowing the composition to bind to the tumor cell, thereby staining the cell with the

diagnostic marker.

15. A method for immunohistochemical diagnosis of malignant neoplasia of epithelial cells comprising:

contacting the malignant neoplasia of epithelial cells with a composition which contains a diagnostic marker comprising: an antibody bound with a fluorescent functional group comprising an indocyanine green derivative which is excited to cause fluorescence, and at least one substance which enhances fluorescence intensity of the fluorescent functional group, said substance being selected from glycerophospholipid, fatty acid, or surfactant wherein the surfactant is a saccharide derivative,

allowing the composition to bind to the malignant neoplasia, thereby staining the neoplasia with the diagnostic marker, and

detecting the malignant neoplasia.

16. The method of claim 14, wherein the glycerophospholipid is acylglycerol phosphate.

17. The method of claim 16, wherein the acylglycerol phosphate is 1,2,-diacyl-sn-glycerol 3-phosphate containing two C₁₀₋₂₀ fatty acid residues.

18. The method of claim 17, wherein the 1,2,-diacyl-sn-glycerol 3-phosphate is dimyristoylphosphatidic acid or distearoylphosphatidic acid.

19. The method of claim 14, wherein the glycerophospholipid is acylglycerol phosphocholine.

20. The method of claim 19, wherein the acylglycerol phosphocholine is 1,2,-diacyl-sn-glycerol 3-phosphocholine containing two C₁₀₋₂₀ fatty acid residues.

21. The method of claim 20, wherein the 1,2,-diacyl-sn-glycerol 3-phosphocholine is

distearoylphosphatidylcholine.

22. The method of claim 14, wherein the saccharide derivative is selected from octyl glucoside, heptyl glucoside, octyl thioglucoside, or heptyl thioglucoside.

23. The method of claim 14, wherein the indocyanine green derivative is indocyanine green-N-hydroxysulfosuccinimide and the saccharide derivative is octyl glucoside.

24. The method of claim 15 wherein the neoplasia of epithelial tissues is esophagus cancer, stomach cancer or large bowel cancer.

09920805-030301